

WHAT IS CLAIMED IS:

1. An information processing apparatus for processing a data stream inputted via a network, comprising:

an input unit adapted to input a data stream via a network;

an analysis unit adapted to analyze the data stream inputted via the input unit;

a generation unit adapted to, in accordance with an analysis result made by the analysis unit, interrupt input of the data stream performed by the input unit and generate an interrupted stream from the data stream; and

an interrupted-stream storage unit adapted to store the interrupted stream generated by the generation unit,

wherein in said analysis, at least one of a compression ratio, a signal-to-noise ratio, an amount of data, and a number of layers of said data stream is employed as an analysis condition.

2. An information processing apparatus according to Claim 1, further comprising an output unit adapted to output the interrupted stream stored in the interrupted-stream storage unit, in response to a request for outputting the data stream.

3. An information processing apparatus according to Claim 1, further comprising a setting unit adapted to set or update a reference value indicating said analysis condition of the analysis unit, wherein the analysis unit analyzes the data stream inputted by the input unit, with respect to the reference value.

4. An information processing apparatus according to Claim 3, further comprising an interrupt information storage unit adapted to store the reference value as interrupt information associated with the interrupted stream, wherein the analysis unit compares the reference value updated by the setting unit with the interrupt information and inputs a partial data stream following the interrupted stream via the input unit, in accordance with a comparison result, wherein the generation unit generates a new interrupted stream from the interrupted stream stored in the interrupted-stream storage unit and the partial data stream, and wherein the interrupt information storage unit stores the updated reference value as new interrupt information.

5. An information processing apparatus according to Claim 4, wherein the output unit outputs the interrupt information together with the interrupted stream.

6. A method of controlling an information processing apparatus for processing a data stream inputted via a network, the method comprising:

an input step of inputting a data stream via a network;

an analysis step of analyzing the data stream inputted via the input step;

10 a generating step of, in accordance with an analysis result made in the analysis step, interrupting input of the data stream in the input step and generating an interrupted stream from the data stream; and

an interrupted-stream storage step of storing, on a first storage medium, the interrupted stream generated in the generating step,

wherein in said analysis, at least one of a compression ratio, a signal-to-noise ratio, an amount of data, and a number of layers of said data stream is employed as an analysis condition.

7. A method for controlling an information processing apparatus according to Claim 6, further comprising an output step of outputting the interrupted stream stored in the interrupted-stream storage step, in response to a request for outputting the data stream.

8. A method for controlling an information processing

apparatus according to Claim 6, further comprising a setting step of setting or updating a reference value indicating said analysis condition in the analysis step, wherein the analysis step analyzes the data stream inputted in the input step, with respect to the reference value.

9. A method for controlling an information processing apparatus according to Claim 8, further comprising an interrupt information storage step of storing, on a second storage medium, the reference value as interrupt information associated with the interrupted stream, wherein the analysis step compares the reference value updated in the setting step with the interrupt information and inputs a partial data stream following the interrupted stream via the input step, in accordance with a comparison result, wherein the generating step generates a new interrupted stream from the interrupted stream stored on the first storage medium in the interrupted-stream storage step and the partial data stream, and wherein the interrupt information storage step stores, on the second storage medium, the updated reference value as new interrupt information.

10. A method for controlling an information processing apparatus according to Claim 9, wherein the output step outputs the interrupt information together with the

interrupted stream.

11. A computer-readable memory medium storing a program for implementing a method of controlling an information processing apparatus, the program comprising:  
a program code of an input step of inputting a data stream via a network;

a program code of an analysis step of analyzing the data stream inputted via the input step;

a program code of a generating step of, in accordance with an analysis result made in the analysis step, interrupting input of the data stream in the input step and generating an interrupted stream from the data stream; and

a program code of an interrupted-stream storage step of storing, on a first storage medium, the interrupted stream generated in the generating step,

wherein in said analysis, at least one of a compression ratio, a signal-to-noise ratio, an amount of data, and a number of layers of said data stream is employed as an analysis condition.

12. An information processing apparatus for processing a data stream inputted via a network, comprising:

an input unit adapted to input a data stream via a network;

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an interrupted-stream storage unit adapted to store an interrupted stream generated by interrupting the data stream;

an interrupt information storage unit adapted to store interrupt information associated with the interrupted stream; and

an output unit adapted to output the interrupted stream stored in the interrupted-stream storage unit, in response to a request for outputting the data stream,

wherein said interrupt information is at least one of a compression ratio, a signal-to-noise ratio, an amount of data, and a number of layers of said data stream.

13. An information processing apparatus according to Claim 12, wherein the output unit inputs a partial data stream following the interrupted stream via the input unit.

14. An information processing apparatus according to Claim 12, further comprising a setting unit adapted to set or update the interrupt information, wherein the output units inputs a partial data stream following the interrupted stream via the input unit, in accordance with the interrupt information updated by the setting unit, and generates a new interrupted stream from the interrupted stream stored in the interrupted-stream storage unit and the partial data stream.

15. An information processing apparatus according to  
Claim 12, wherein the output unit outputs the interrupt  
information together with the interrupted stream.

16. A method of controlling an information processing  
apparatus for processing a data stream inputted via a  
network, the method comprising:

an input step of inputting a data stream via a network;

an interrupted-stream storage step of storing, on a  
first storage medium, an interrupted stream generated by  
interrupting the data stream;

an interrupt information storage step of storing, on a  
second storage medium, the interrupt information associated  
with the interrupted stream; and

an output step of outputting the interrupted stream  
stored on the first storage medium in the interrupted-stream  
storage step, in response to a request for outputting the  
data stream,

wherein said interrupt information is at least one of a  
compression ratio, a signal-to-noise ratio, an amount of  
data, and a number of layers of said data stream.

17. A method for controlling an information processing  
apparatus according to Claim 16, wherein the output step

inputs a partial data stream following the interrupted stream, via the input step.

18. A method for controlling an information processing apparatus according to Claim 16, further comprising a setting step of setting the interrupt information, wherein, in accordance with the interrupt information updated in the setting step, the output step inputs, via the input step, a partial data stream following the interrupted stream and generates a new interrupted stream from the partial data stream and the interrupted stream stored on the second storage medium in the interrupted-stream storing step.

19. A computer-readable memory medium storing a program for implementing a method of controlling an information processing apparatus, the program comprising:

a program code of an input step of inputting a data stream via a network;

a program code of an interrupted-stream storage step of storing, on a first storage medium, an interrupted stream generated by interrupting the data stream;

a program code of an interrupt information storage step of storing, on a second storage medium, the interrupt information associated with the interrupted stream; and

a program code of an output step of outputting the

interrupted stream stored on the first storage medium in the interrupted-stream storage step, in response to a request for outputting the data stream,

wherein said interrupt information is at least one of a compression ratio, a signal-to-noise ratio, an amount of data, and a number of layers of said data stream.

20. An information processing apparatus for processing a data stream inputted via a network, comprising:

an input unit adapted to input a data stream via a network;

an analysis unit adapted to analyze the data stream inputted via the input unit;

a generating unit adapted to, in accordance with an analysis result made by the analysis unit, interrupt input of the data stream via the input unit and generate an interrupted stream from the data stream;

an interrupted-stream storage unit adapted to store the interrupted stream generated by the generating unit;

an interrupt information storage unit adapted to store interrupt information associated with the interrupted stream; and

an output unit adapted to output the interrupted stream and the interrupt information to an external apparatus connected to the network,

wherein in said analysis, at least one of a compression ratio, a signal-to-noise ratio, an amount of data, and a number of layers of said data stream is employed as an analysis condition.

21. An information processing apparatus according to Claim 20, further comprising a setting unit adapted to set or update a reference value indicating said analysis condition of the analysis unit, wherein the analysis unit analyzes the data stream inputted via the input unit, with respect to the reference value.

22. A method of controlling an information processing apparatus for processing a data stream inputted via a network, the method comprising:

an input step of inputting a data stream via a network;  
an analysis step of analyzing the data stream inputted via the input step;

a generating step of, in accordance with an analysis result made in the analysis step, interrupting input of the data stream in the input step and generating an interrupted stream from the data stream;

an interrupted-stream storage step of storing, on a first storage medium, the interrupted stream generated in the generating step;

an interrupt information storage step of storing, on a second storage medium, the interrupt information associated with the interrupted stream; and

an output step of outputting the interrupted stream and the interrupt information to an external apparatus connected to the network,

wherein in said analysis, at least one of a compression ratio, a signal-to-noise ratio, an amount of data, and a number of layers of said data stream is employed as an analysis condition.

23. A method for controlling an information processing apparatus according to Claim 22, further comprising a setting step of setting a reference value indicating said analysis condition in the analysis step, wherein the analysis step analyzes the data stream inputted via the input step, with respect to the reference value.

24. A computer-readable memory medium storing a program for implementing a method of controlling an information processing apparatus, the program comprising:

a program code of an input step of inputting a data stream via a network;

a program code of an analysis step of analyzing the data stream inputted via the input step;

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a program code of a generating step of, in accordance with an analysis result made in the analysis step, interrupting input of the data stream in the input step and generating an interrupted stream from the data stream;

a program code of an interrupted-stream storage step of storing, on a first storage medium, the interrupted stream generated in the generating step;

a program code of an interrupt information storage step of storing, on a second storage medium, the interrupt information associated with the interrupted stream; and

a program code of an output step of outputting the interrupted stream and the interrupt information to an external apparatus connected to the network,

wherein in said analysis, at least one of a compression ratio, a signal-to-noise ratio, an amount of data, and a number of layers of said data stream is employed as an analysis condition.

25. An information processing system including a management terminal for managing data streams and a terminal for issuing a request for outputting a data stream, the terminal and the management terminal being connected to each other via a network,

the management terminal comprising:

a database storing the data streams; and

an output unit adapted to acquire a specified data stream from the database in accordance with a request for outputting the data stream issued by the terminal and output the data stream to the terminal via the network, and the terminal comprising:

an issuing unit adapted to issue a request for outputting a data stream;

an input unit adapted to input the requested data stream from the management terminal via the network;

an analysis unit adapted to analyze the data stream inputted via the input unit;

a generating unit adapted to, in accordance with an analysis result made by the analysis unit, interrupt input of the data stream via the input unit and generate an interrupted stream from the data stream; and

an interrupted-stream storage unit adapted to store the interrupted stream generated by the generating unit,

wherein in said analysis, at least one of a compression ratio, a signal-to-noise ratio, an amount of data, and a number of layers of said data stream is employed as an analysis condition.

26. An information processing system including a management terminal for managing data streams, a first terminal connected to the management terminal via a first

network, and a second terminal connected to the first terminal via a second network,

the management terminal comprising:

a database storing the data streams; and

an output unit adapted to acquire a specified data stream from the database in accordance with a request for outputting the data stream issued by the first terminal and transferred to the management terminal, and to output the data stream to the terminal via the first network,

the first terminal comprising:

a first transfer unit adapted to transfer a request for outputting the data stream issued by the second terminal to the management terminal via the first network; and

a second transfer unit adapted to transfer the data stream received from the management terminal via the first network to the second terminal via the second network, and

the second terminal comprising:

an issuing unit adapted to issue a request for outputting a data stream;

an input unit adapted to input the requested data stream from first terminal via the second network;

an analysis unit adapted to analyze the data stream inputted via the input unit;

a generating unit adapted to, in accordance with an analysis result made by the analysis unit, interrupt input

of the data stream via the input unit and generate an interrupted stream from the data stream; and

an interrupted-stream storage unit adapted to store the interrupted stream generated by the generating unit,

wherein in said analysis, at least one of a compression ratio, a signal-to-noise ratio, an amount of data, and a number of layers of said data stream is employed as an analysis condition.

27. An information processing system including a management terminal for managing data streams, a first terminal connected to the management terminal via a first network, and a second terminal connected to the first terminal via a second network,

the management terminal comprising:

a database storing the data streams;

an output unit adapted to acquire a specified data stream from the database in accordance with a request for outputting the data stream issued by the first terminal and transferred to the management terminal, and to output the data stream to the terminal via the first network,

the first terminal comprising:

a transfer unit adapted to transfer a request for outputting the data stream issued by the second terminal to the management terminal via the first network;

an analysis unit adapted to analyze the data stream received from the management terminal via the first network;

a generating unit adapted to, in accordance with an analysis result made by the analysis unit, interrupt input of the data stream via the input unit and to generate an interrupted stream from the data stream; and

a first transfer unit adapted to transfer the interrupted stream to the second terminal via the second network, and

the second terminal comprising:

an issuing unit adapted to issue a request for outputting a data stream;

an input unit adapted to input the requested data stream from the first terminal via the second network; and

an interrupted-stream storage unit adapted to store the interrupted stream inputted via the input unit,

wherein in said analysis, at least one of a compression ratio, a signal-to-noise ratio, an amount of data, and a number of layers of said data stream is employed as an analysis condition.

28. An information processing system including a first terminal for managing data streams and a second terminal for issuing a request for outputting a data stream, the first and second terminals being connected to each other via a

network,

the first terminal comprising:

a database storing the data streams;

an analyzing unit adapted to acquire a specified data stream from the database in accordance with a request for outputting the data stream issued by the second terminal and to analyze the data stream;

a generating unit adapted to generate an interrupted stream from the data stream in accordance with an analysis result made by the analysis unit; and

an output unit adapted to output the interrupted stream to the second terminal via the network, and

the second terminal comprising:

an issuing unit adapted to issue a request for outputting a data stream;

an input unit adapted to input the requested data stream from the first terminal via the network; and

an interrupted-stream storage unit adapted to store the interrupted stream inputted via the input unit,

wherein in said analysis, at least one of a compression ratio, a signal-to-noise ratio, an amount of data, and a number of layers of said data stream is employed as an analysis condition.

29. An information processing system including a first

terminal for managing data streams and a second terminal for issuing a request for outputting a data stream, the first and second terminals being connected to each other via a network,

the first terminal comprising:

a database storing the data streams; and

an interrupted-stream storage unit adapted to store an interrupted stream generated by interrupting the data stream inputted from the second terminal via the network, and

the second terminal comprising:

an input unit adapted to input a data stream from the first terminal via the network;

an analysis unit adapted to analyze the data stream inputted via the input unit;

a generating unit adapted to, in accordance with an analysis result made by the analysis unit, interrupt input of the data stream via the input unit and generate an interrupted stream from the data stream;

an interrupted-stream storage unit adapted to store the interrupted stream generated by the generating unit;

an interrupt information storage unit adapted to store interrupt information associated with the interrupted stream; and

an output unit adapted to output the interrupted

stream and the interrupt information to the first terminal via the network,

wherein in said analysis, at least one of a compression ratio, a signal-to-noise ratio, an amount of data, and a number of layers of said data stream is employed as an analysis condition.

30. An information processing system including a first terminal for managing data streams and a second terminal for issuing a request for outputting a data stream, the first and second terminals being connected to each other via a network,

the first terminal comprising:

a database storing the data streams;

an analysis unit adapted to acquire a specified data stream from the database in accordance with a request for outputting the data stream issued by the first terminal and to analyze the data stream;

a generating unit adapted to generate an interrupted stream from the data stream in accordance with an analysis result made by the analysis unit;

an interrupted-stream storage unit adapted to store the interrupted stream generated by the generating unit; and

an output unit adapted to output the interrupted stream to the second terminal via the network, and

the second terminal comprising:

an issuing unit adapted to issue a request for outputting a data stream; and

an input unit adapted to input the requested data stream from the first terminal via the network,

wherein in said analysis, at least one of a compression ratio, a signal-to-noise ratio, an amount of data, and a number of layers of said data stream is employed as an analysis condition.